IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Christiaan Mets et al.

Serial No.:   10/026,144

For: METHOD AND SYSTEM FOR CAPTURING, STORING AND RETRIEVING EVENTS AND ACTIVITIES

Filed: December 21, 2001

Examiner: Padmanabhan, K.

Art Unit: 2161

Confirmation No.:   8222

Customer No.:   00128   Attorney Docket No.:   I20 02220 US

Mail Stop Amendment
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

<div align="center">

AMENDMENT TRANSMITTAL

</div>

       We are enclosing a response to the communication dated December 21, 2007 in the above-identified application.

       Petition for extension of time pursuant to 37 C.F.R. §§ 1.136 and 1.137 is hereby made if, and to the extent, required. The fee for this extension of time is calculated to be $_____ to extend the time for filing this response until _____.

The fee for any change in number of claims has been calculated as shown below.

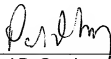| CLAIMS AS AMENDED						
	Claims Remaining After Amendment		Highest Number Previously Paid	Present Extra	Rate	
Total Claims	26	Minus	26	0	x $50.00	$50.00
Independent Claims	3	Minus	3	0	x $200.00	$
MULTIPLE DEPENDENT CLAIM FEE					x $360.00 = $	
TOTAL FEE FOR CLAIM CHANGES						$0.00
1/2 FILING FEE FOR SMALL ENTITY						$N/A

The total fee for this amendment, including claim changes and any extension of time is calculated to be $ _____ .

_____ A check in the amount of $ _____ is attached.

X The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. §§1.16 and 1.17 which may be required with this communication or during the entire pendency of the application, or credit any overpayment, to **Deposit Account No. 01-0467.** A duplicate copy of this Form is enclosed.

_____February 11, 2008_____
Date

Paul D. Greeley
Attorney for Applicant(s)
Registration No. 31,019
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
One Landmark Square, 10th Floor
Stamford, CT 06901-2682
Telephone: (203) 327-4500
Telefax: (203) 327-6401

Applicants:	Christiaan Mets et al.		
Serial No.:	10/026,144		
For:	METHOD AND SYSTEM FOR CAPTURING, STORING AND RETRIEVING EVENTS AND ACTIVITIES		
Filed:	December 21, 2001		
Examiner:	Padmanabhan, K.		
Art Unit:	2161		
Confirmation No.:	8222		
Customer No.:	27623	Attorney Docket No.:	I20 02220 US

AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the non-final Office Action dated December 21, 2007, please enter the following amendments in the consideration of the above patent application.

Amendment to the claims begins on page 2.

Remarks begin on page 10.

IN THE CLAIMS

Please replace any previous listing of the claims with the following replacement
listing of the claims:

Replacement Listing of the Claims

1 and 2.   (Canceled)

3.   (Previously presented) The method of claim 26, wherein at least one of said
classified attribute types is a start time, and wherein at least one of said storage volumes
is accessed according to said start time type for storage and retrieval of values of said
attributes corresponding to at least one of said events and/or activities.

4.   (Previously presented) The method of claim 26, wherein at least one attribute of a
plurality of said events and/or activities is common to at least one of said defined
attribute types, and wherein at least one storage volume of said database is allocated to all
of said common attributes.

5.   (Previously presented) The method of claim 26, further comprising compressing
said data of said industrial process which is stored in a first one of said storage volumes
according to identity of values of said data of said industrial process of said attributes of
consecutive events and/or activities that have been allocated for storage in said first one
of said storage volumes.

6.   (Previously presented) The method of claim 5, wherein said data structure further
comprises a time stamp, and wherein said first one of said storage volumes is accessed
according to said time stamp for storage and/or retrieval of said values of said data of said
industrial process, and wherein said values of said data of said industrial process of a first
event are retrieved from said first storage volume by using a value of a first time stamp

for said first event or of a second time stamp value of a second one of said events that is earlier in time than said first time stamp value.

7.   (Previously presented) The method of claim 26, wherein a value of an attribute type that is always the same for a specific one of said event or activity types is classified as static, and further comprising optimizing data storage in one of said storage volumes by omitting storage of said static value.

8.   (Previously presented) The method of claim 26, wherein said industrial process is one of a plurality of industrial processes, and wherein said program operates said computer for each of said plurality of industrial processes using said data structure.

9.   (Previously presented) The method of claim 8, wherein at least two of said plurality of industrial processes are different from one another.

10.   (Previously presented) The method of claim 26, further comprising presenting data values of different ones of said events and/or activities that are defined as different event and/or activity types in any one of a plurality of formats to said client device.

11.   (Original) The method of claim 10, wherein said plurality of formats are selected from the group consisting of: row format, column format and chart format.

12.   (Previously presented) The method of claim 26, further comprising developing a map structure for mapping diverse external names of said attributes and/or field contents thereof to a common internal attribute name and/or field content.

13 and 14.   (Canceled)

15.   (Previously presented) The computer system of claim 27, wherein at least one of said classified attribute types is a start time, and wherein at least one of said volumes is

accessed according to said start time type for storage and retrieval of values of said attributes corresponding to at least one of said events and/or activities.

16. (Previously presented) The computer system of claim 27, wherein at least one attribute of a plurality of said events and/or activities is common to at least one of said defined attribute types, and wherein at least one storage volume of said database is allocated to all of said common attributes.

17. (Previously presented) The computer system of claim 27, further comprising compressing said data of said industrial process which is stored in a first one of said storage volumes according to identity of values of said attributes of consecutive events and/or activities that have been allocated for storage in said first one of said storage volumes.

18. (Previously presented) The computer system of claim 17, wherein said data structure further comprises a time stamp, and wherein said first one of said storage volumes is accessed according to said time stamp for storage and/or retrieval of said values, and wherein said values of a first event are retrieved from said first storage volume by using the value of a first time stamp for said first event or of a second time stamp value of a second one of said events that is earlier in time than said first time stamp value.

19. (Previously presented) The computer system of claim 27, wherein a value of an attribute type that is always the same for a specific one of said event or activity types is classified as static, and further comprising optimizing data storage in said first one of said storage volumes by omitting storage of said static value.

20. (Previously presented) The computer system of claim 27, wherein said industrial process is one of a plurality of industrial processes, and wherein each of said plurality of industrial processes is classified for defined event and/or activity types and defined attribute types using said data structure.

21.   (Previously presented) The computer system of claim 20, wherein at least two of said plurality of industrial processes are different from one another.

22.   (Previously presented) The computer system of claim 27, wherein said program further presents data values of different ones of said event and/or activities that are defined as different event and/or activity types in any one of a plurality of formats to said client device.

23.   (Original) The computer system of claim 22, wherein said plurality of formats is selected from the group consisting of: row format, column format and chart format.

24.   (Previously presented) The computer system of claim 27, wherein said program further develops a map structure for mapping diverse external names of attributes and/or field contents thereof to a common internal attribute name and/or field content.

25.   (Canceled)

26.   (Currently amended) A method for using a computer to define, store and retrieve data of an industrial process, said method comprising:

         collecting with a monitor said data of said industrial process and providing said data of said industrial process to said computer;

         operating said computer with a program
to define said industrial process by

                  (a) to identifyidentifying, in response to input data entered by a user, one or more events and/or activities of said industrial process and one or more attributes of said events and/or said activities;

                  (b) to classifyclassifying said identified events, activities and attributes that are identified by step (a) according to a data structure that comprises at least a first event type or at least a first activity type and a plurality of attribute types therefore; and

5

(c) ~~to organize~~organizing a plurality of storage volumes of ~~said~~ a database for said classified attribute types, wherein said plurality of storage volumes comprises first and second storage volumes that are organized for said first activity or for said first event type and for storage of values of first and second ones of said attributes, respectively, of said first activity or of said first event type; and

to store and retrieve said collected data of said industrial process when running by

(d) ~~to use~~using said data structure in a manner that permits access to said organized storage volumes of said database by said activities, events and attributes that are identified by step (a) to store said collected data of said industrial process in said storage volumes according to said data structure and, in response to a request, which identifies said first activity type or said first event type and said first attribute, to retrieve from said first storage volume one or more values of said first attribute and, in response to a request, which identifies said first activity type or said first event type and said second attribute, to retrieve from said second storage volume one or more values of said second attribute; and

(e) ~~to provide~~providing said retrieved values of said first and second attributes to a client device.

27.   (Currently amended) A computer system that defines, stores and retrieves the data of an industrial process comprising:

a computer, a database, a client device and a monitor that collects said data of said industrial process and provides said data of said industrial process to said computer, wherein said computer comprises a program that when executed on said computer performs the steps comprising:

defining said industrial process by

~~(a)~~ identifying, in response to input data entered by a user, one or more events and/or activities of said industrial process and one or more attributes of said events and/or activities;

6

(b) classifying said events, activities and attributes that are identified by step (a) according to a data structure that comprises at least a first event type or at least a first activity type and a plurality of attribute types therefore; and

(c) organizing a plurality of storage volumes of said a database for said classified attribute types, wherein said plurality of storage volumes comprises first and second storage volumes that are organized for said first activity or for said first event type and for storage of values of first and second ones of said attributes, respectively, of said first activity or of said first event type; and storing and retrieving said collected data of said industrial process when running by

(d) using said data structure in a manner that permits access to said organized storage volumes of said database by said activities, events and attributes that are identified by step (a) to store said data of said industrial process in said storage volumes according to said data structure and, in response to a request, which identifies said first activity type or said first event type and said first attribute, to retrieve from said first storage volume one or more values of said first attribute and, in response to a request, which identifies said first activity type or said first event type and said second attribute, to retrieve from said second storage volume one or more values of said second attribute; and

(e) providing said retrieved values of said first and second attributes to a client device.

28.   (Currently amended) A memory media having stored thereon a computer readable program for controlling a computer that defines, stores and retrieves data of an industrial process, wherein said computer readable program comprises:

defining said industrial process by executing

(a) one or more first program instructions that control said computer to identify, in response to input data entered by a user one or more events and/or activities of said industrial process and one or more attributes of said events and/or activities ;

(b) one or more second program instructions that control said computer to classify said identified events, activities and attributes that are identified by said computer per the first program instructions according to a data structure that comprises at least a first event type or at least a first activity type and a plurality of attribute types therefore; and

(c) one or more third program instructions that control said computer to organize a plurality of storage volumes of a database for said classified attribute types wherein said plurality of storage volumes comprises first and second storage volumes that are organized for said first activity or for said first event type and for storage of values of first and second ones of said attributes, respectively, of said first activity or of said first event type; and storing and retrieving said data of said industrial process when running by executing

(d) one or more fourth program instructions that control said computer to use said data structure in a manner that permits access to said organized storage volumes of said database by said activities, events and attributes that are identified by said computer per the first program instructions to store said collected data of said industrial process in said storage volumes according to said data structure and, in response to a request, which identifies said first activity type or said first event type and said first attribute, to retrieve from said first storage volume one or more values of said first attribute and, in response to a request, which identifies said first activity type or said first event type and said second attribute to retrieve from said second storage volume one or more values of said second attribute; and

(e) one or more fifth program instructions that control said computer to provide said retrieved values of said first and second attributes to a client device.

29.   (Currently amended) The memory media of claim 28, wherein a portion of said data of said industrial process is <u>continuous data of</u> a time <u>variable parameter</u> ~~varying signal~~, and wherein said monitor comprises at least one sensor that receives said <u>continuous data</u> ~~time varying signal~~ and provides it to said computer.

8

30.   (Currently amended) The method of claim 26, wherein a portion of said data of said industrial process is <u>continuous data of</u> a time <u>variable parameter</u> ~~varying signal~~, and wherein said monitor comprises at least one sensor that receives said <u>continuous data</u> ~~time varying signal~~ and provides it to said computer.

31.   (Currently amended) The computer system of claim 27, wherein a portion of said data of said industrial process is <u>continuous data of</u> a time <u>variable parameter</u> ~~varying signal~~, and wherein said monitor comprises at least one sensor that receives said <u>continuous data</u> ~~time varying signal~~ and provides it to said computer.

REMARKS

Claims 3-12, 15-24 and 26-31 are pending in the application. Claims 26-31 have been amended. Reconsideration of this application is respectfully requested.

The Office Action objects to claim 27 because "and" in line 3 of step (a) should be "and/or". Claim 27 has been so amended. Therefore, it is respectfully submitted that the objection is obviated by the amendment and should be withdrawn.

The Office Action rejects claims 3-12, 15-24 and 26-31 under the first paragraph of 35 U.S.C. 112 as failing to comply with the written description requirement. The Examiner contends that page 12, lines 13-24, does not support the following recitation in independent claims 26-28:

> "wherein said plurality of storage volumes comprises first and second storage volumes that are organized for said first activity or for said first event type and for storage of values of first and second ones of said attributes, respectively, of said first activity or of said first event type".

It is respectfully submitted that this contention is mistaken. The recitation is supported by the following sentence at page 12, lines 16-19, with corresponding elements of claims 26-28 inserted parenthetically:

> "For example, the start times (first attributes) of PumpOut1, PumpOut2 and PumpOut3 are all stored in one logical or physical storage volume (first storage volume) and the end times (second attributes) thereof are stored in another logical or physical storage volume (second storage volume)."

The Examiner contends that page 12, lines 13-24, does not support the following recitation in independent claims 26-28:

"in response to a request, which identifies said first activity type or said first event type and said first attribute, to retrieve from said first storage volume one or more values of said first attribute and, in response to a request, which identifies said first activity type or said first event type and said second attribute, to retrieve from said second storage volume one or more values of said second attribute".

It is respectfully submitted that this contention is mistaken. The recitation is supported by the following sentence at page 12, lines 19-23, with corresponding elements of claims 26-28 inserted parenthetically:

"Thus, process data handling program 44 converts a request to store or retrieve a start time (first attribute) for activity PumpOut1 (first activity type) to a form that accesses memory 38 for the storage volume (first storage volume) that is allocated for the start times (first attributes) of the PumpOut activities (first activity types), specifically the location therein for the start time of activity Pumpout1."

Although the text at page 12 does not speak to "in response to a request, which identifies said first activity type or said first event type and said second attribute, to retrieve from said second storage volume one or more values of said second attribute", such operation is clearly inherent in the description based on all of the text at page 12, lines 13-24.

The Examiner contends that "time varying signal" and "sensor" recited in claims 29-31 is not supported by the specification. Claims 29-31 have been amended to replace "time varying signal" with "continuous data of a time variable parameter", which is supported at page 6, lines 18 and 19.

However, "sensor" is clearly supported by the specification at page 9, lines 4-18. Note for example, "level sensor LI101" and "flow rate sensor".

For the reasons set forth above, it is submitted that the rejection of claims 3-12, 15-24 and 26-31 under the first paragraph of 35 U.S.C. 112 is either mistaken or obviated by the amendment.

The Office Action rejects claims 3-12, 15-24 and 26-31 under the second paragraph of 35 U.S.C. 112 indefinite. The Examiner contends that the following recitation in independent claims 26-28 is indefinite:

> "wherein said plurality of storage volumes comprises first and second storage
> volumes that are organized for said first activity or for said first event type and for
> storage of values of first and second ones of said attributes, respectively, of said
> first activity or of said first event type".

As stated in the Amendment filed on October 26, 2007, the Examiner is confusing indefiniteness with breadth of the language. In the present Office Action, the Examiner assumes that this recitation means "that the first and second storage volumes are used to organize the activity or event data and attribute values" and indicates the assumption will be used in the rejection of the claims under 35 U.S.C. 103(a). This assumption is improper because it ignores the plain language of the recitation, namely, "said plurality of storage volumes comprises first and second storage volumes that are organized…for storage of values of first and second ones of said attributes, respectively, of said first activity or of said first event type". Therefore, to the extent the assumption is used by the Examiner in the rejection under section 103(a), such rejection is erroneous.

For the reasons set forth above, it is submitted that the rejection of claims 3-12, 15-24 and 26-31 under the second paragraph of 35 U.S.C. 112 is erroneous.

The Office Action rejects claims 3-12, 15-24 and 26-31 under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 5,613,113 to Goldring, hereafter Goldring.

Goldring lacks an industrial process as recited in the claims. Goldring describes a financial process in which the financial data constitute update changes that are generated by a user using client device 16. In contrast, the collecting step of independent claim 26 collects with a monitor the data of a running industrial process. Goldring's client device is a PC used to generate the data whereas the claimed monitor collects the data generated by the industrial process. For this reason, Goldring lacks the monitoring step of independent claim 26 and claims 27 and 28 as well, which contain similar language.

The Examiner reads the identifying, classifying and organizing steps on the processing of the actual data of Goldring's financial process. Independent claims 26-28 have been amended to clarify that the program has two functions. The first function defines events, activities and attributes of each for an industrial process, based on input data of a user, classifies the defined events, activities and attributes according to a data structure of event types or activity types and attribute types, and organizes storage volumes for the attribute types. Goldring completely lacks the first function. Goldring merely acts upon the financial data as entered by a user, i.e., the actual data of Goldring's financial process, and not on definitional data of the process.

The second function is to store the collected data of the running industrial process in the defined storage volumes and to retrieve the industrial data from the storage volumes based on a request that identifies the storage volume to be accessed by activity or event type and attribute. Goldring has a fixed storage format for the activity log and does not access the activity log in a way that stores the attributes in different storage volumes according to attribute type as claimed. Per the claimed invention, a particular attribute (e.g., start time) is read from a database that accesses a particular storage volume (e.g., first storage volume) in response to a request that identifies an event or activity and the particular attribute. In contrast, Goldring reads a series of data records and then with a separate functional action determines which ones fall between desired time markers.

Clearly, Goldring lacks the two functions of the program recited in amended independent claims 26-28.

The Examiner admits that "Goldring does not expressly teach in response to a request, which identifies said first activity type or said first event type and said second attribute to retrieve from said second storage volume one or more values of said second attribute". The Examiner then notes that Goldring allows the user to define user tables 28, which constitute storage volumes, and teaches requesting specific data from the plurality of tables, citing column 5, lines 18-20, column 6, lines 18-20, and column 9, lines 52-60, and then concludes that it would have been obvious to store data relating to different attributes in different tables.

Goldring's column 6, lines 18-20, speaks to the location of the time values in the update data changes (Goldring's financial data). The data read from activity log 32 comprises time series data of update changes with embedded time markers that is not organized into a plurality of storage volumes according to attributes.

Goldring's column 5, lines 18-20, says that the mainframe computer 12 includes a database comprising a plurality of user tables 28 defined by the users. Goldring's column 9, lines 52-60, relates to a user requesting a snapshot copy. The user terminal includes an apply processor 34 that puts information into mainframe computer 12 that enables the retrieval of a portion of a previous snapshot stored in the user table 28 that corresponds to the user. There is no disclosure that the data in a user table 28 is organized into first and second storage volumes based on first and second attributes as claimed.

There is no basis in Goldring for the Examiner's conclusion of obviousness. In order to establish a prima facie case of obviousness, the Examiner needs to have adequate evidence (e.g., another reference) of record.

Moreover, the Examiner's conclusion is improperly based on the hindsight of Applicants' disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871
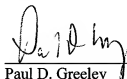
F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). "The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made." Sensonics Inc. v. Aerosonic Corp. 38 USPQ 2d 1551, 1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

For the reasons set forth above, it is submitted that the rejection of claims 3-12, 15-24 and 26-31 under 35 U.S.C. 103(a) is obviated by the amendment and should be withdrawn.

It is respectfully requested for the reasons set forth above that the rejections under 35 U.S.C. 112 and 35 U.S.C. 103(a) be withdrawn, that claims 3-12, 15-24 and 26-31 be allowed and that this application be passed to issue.

Respectfully Submitted,

Date: 2|11|08

Paul D. Greeley
Reg. No. 31,019
Attorney for Applicants
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.
One Landmark Square, 10th Floor
Stamford, CT 06901-2682
(203) 327-4500